

REMARKS

In an Office Action dated April 20 2007, the Examiner has objected to Claim 1 for informalities. The Examiner has rejected Claim 28-40 under 35 USC §101 as not limited to statutory embodiments due to a reference in the specification to transmission media including signals such as “carrier waves.” The Examiner has rejected Claims 5 and 27 under 35 USC §112 because there is insufficient antecedent basis for the limitation in the claims. The Examiner has rejected Claims 1-40 under 35 USC § 103(a) as being unpatentable over GB 2350534 A issued to Jennings et al. (“Jennings”) in view of EP 1265161 A2 issued to Baskins et al. (“Baskins”).

CLAIM OBJECTIONS

Claim 1 has been amended to correct the informality.

CLAIM REJECTIONS – 35 U.S.C. §101

Claims 28-40 are rejected under 35 U.S.C. §101 because the Examiner argues that Claims 28-40 are not limited to statutory embodiments due to the earlier reference in the specification describing a machine-readable medium as including signals transmitted in the form of carrier waves and the like. The Applicant has amended the specification to remove references to transmission media, including carrier wave signals and the like.

CLAIM REJECTIONS – 35 U.S.C. § 112

Claims 5 and 27 are rejected under 35 USC §112 because there is insufficient antecedent basis for the limitation in the claims. Applicant has amended Claim 5 to

correct the dependency so that it now depends from Claim 2 instead of Claim 1, thereby correcting the antecedent basis problem. Claim 27 has been amended to clarify the trie-entry portion limitations and subject matter that the Applicant claims as his invention.

CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 1-40 are rejected under 35 USC § 103(a) as being unpatentable over GB 2350534 A issued to Jennings et al. (referred to herein as "Jennings," but note that the Examiner refers to this reference as "Kevin," using the first name of the inventor instead of the last name as is usually done) in view of EP 1265161 A2 issued to Baskins et al. ("Baskins").

In pertinent part, the Examiner rejects independent Claims 1, 28, and 35, arguing that the header information of Jennings (citing Jennings, Fig.2, element 21, P. 3, lines 22023) discloses a pruned-trie entry, and that Baskins (citing Baskins, [0022], lines 1-8) discloses storing a second portion of data in the pruned trie entry as well as discloses indicating in the pruned trie entry the position that the second portion of data occupies relative to the other portions of the data. Applicant disagrees.

Applicant could find nothing in the disclosure of Jennings which suggests a pruned trie entry. Instead, Jennings discloses a trie structure which does not prune the trie blocks at all, but merely provides a way to accommodate trie blocks of differing sizes by providing a way to select the correct number of address bits to use in each stage of a trie search. (Jennings, Page 3, Lines 10-16). The Examiner appears to equate the pointer in the header of Jennings with the pruned trie entry. But the pointer in Jennings merely indicates a location and size of the next block of memory to access during the search of

the trie (Jennings, Page 3, Lines 18-26), and discloses nothing with respect to whether the data stored in the block has been pruned as recited in Claim 1.

The Examiner concedes that Jennings fails to disclose storing the second portion of data in the pruned trie entry and indicating the position of the second portion of data relative to the other portions of the data. But the Examiner argues that Baskins discloses these limitations in disclosure related to “rich” pointers that provide both conventional address redirection information used to traverse the trie as well as supplementary information used to optimize traversing the trie, including skipping levels, detecting errors and storing state information (Baskins, P. 6, Para. [0022]). The Examiner apparently concludes that this disclosure of Baskins teaches that which Jennings failed to disclose, i.e., storing the second portion of data in a pruned trie entry and indication the position of the second portion of data relative to the other portions of the data. Applicant disagrees.

The rich pointers disclosed in Baskins do not appear to include any reference to pruning the data that is stored in the trie, or providing positional information about the stored data relative to other portions of the data. The content of the rich pointer described in Baskin includes “an address (the actual pointer), index digits (parts of keys), population counts, type information concerning the next level to which the pointer “points” or is directed to within the tree, redundant data supporting error detection, state information, etc.” (Baskins, Page 6, Para [0022]). Nothing in this description teaches or suggests storing a second portion of data in a pruned trie entry, much less indicating the position of the second portion of data relative to the other portions of the data.

The Examiner rejects independent Claims 16, 32, and 38, for reasons similar to the reasons for rejecting independent Claims 1, 28, and 35. In particular the Examiner argues that the description in Jennings related to the conventions used in formatting a forwarding data base (citing Jennings, Page 2, Lines 16-22) again discloses a pruned-trie entry, this time equating the pointer-related information for the next block with the pruned trie-entry recited in the claims. The Examiner further argues that Baskins (citing Baskins, [0022], lines 10-18) discloses whether the trie entry portion matches a second portion of the address and determining the next hop address. Applicant disagrees.

As indicated with reference to Claims 1, 28, and 35, Applicant could find nothing in the disclosure of Jennings which suggests a pruned trie entry. The description of the format of a forwarding data base in the cited passage of Jennings does not disclose a pruned trie entry as recited in the claims. Again, the Examiner appears to equate the pointer-related information of the next block of Jennings with the pruned trie entry. But the pointer in Jennings merely indicates a location and size of the next block of memory to access during the search of the trie (Jennings, Page 3, Lines 18-26), and discloses nothing with respect to whether the data stored in the block has been pruned as recited in Claim 1.

The Examiner concedes that Jennings fails to disclose whether the trie entry portion matches the second portion of the address, and whether a trie entry of a second trie block indicates a location of a next hop address, wherein the trie entry of the second trie block is identified by a second portion of the prefix matching a third portion of the address. But the Examiner again argues that Baskins discloses these limitations in disclosure related the pointer information, and concludes that this pointer information

discloses all of the remaining limitations of the claims. Applicant disagrees for the same reasons discussed with reference to Claims 1, 28, and 35.

Dependent claims 2-15, 17-27, 19-31, 33-34, 36-37, and 39-40 are distinguishable over the cited references for the same reasons as are the independent Claims 1, 16, 28, 32, 35, and 38, from which they depend. Accordingly, Applicant submits that all of the pending claims are distinguishable over the cited references and respectfully requests that all of the rejections be withdrawn.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims 1-40 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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